





Richland Operations Office K Basin Sludge Removal Update Mark French, DOE-RL

January 9, 2017

Sludge Removal Project

History

- Sludge is highly radioactive material (approximately 30,000 curies) currently stored under water in the 105KW Basin next to the Columbia River.
- Sludge must be removed from the aging basin and placed into safe storage.

| FY2015 | FY2016 | FY2017 | | | | |
|---------------------------------------|---|--|--|--|--|--|
| Completed 105KW Annex construction | Received, installed, and tested equipment for the 105KW Basin and Annex at the mock- up test facility | Completed modifications to T Plant Completed installation of hardware in the 105KW Basin and Annex Completed majority of testing | | | | |



K Area Sludge Removal Project Update



The K Basin Pre-operational Acceptance Testing (KPAT) completed in October.



K Area Sludge Removal Project Update



Sludge Removal Project custody was officially transferred to 100K Operations in November. The transition followed completion of sludge removal system testing, which enables final field validation of operating/maintenance procedures, training, and qualification of the crew that will operate/maintain the systems to remove sludge.







K Area Sludge Removal Project Update



Workers are currently preparing for the Operations Readiness Review focusing on operational performance demonstrations and drills to enhance proficiency.



K Area Sludge Transport to T-Plant for Interim Storage and Eventual Treatment and Disposal



T Plant Management declared readiness and completed the Readiness Assessment in December.



Sludge Removal Project

Summary Schedule

| line | Activity Name | Rem Dur | Current Start | Current Finish | | | FY2018 | | | FY2019 | | |
|---------|---------------------------------|------------|---------------|----------------|-----|------|----------|-----|-----|--------|-----|-----|
| Number | | | | | FQ4 | FQ1 | FQ2 | FQ3 | FQ4 | FQ1 | FQ2 | FQ3 |
| 105 KW | | | | | | | | | | | | |
| 1 | Readiness Prep | 17 | 01-Nov-17 A | 19-Jan-18 | 1 | | | | | | | |
| 2 | Contractor ORR | 11 | 22-Jan-18 | 07-Feb-18 | | | | | | | | |
| 3 | CHPRC Startup Approval Letter | 3 | 05-Feb-18 | 07-Feb-18 | | | - | | | | | |
| 4 | DOE ORR | 18 | 12-Feb-18 | 14-Mar-18 | | | | | | | | |
| 5 | DOE Approve Request for Startup | 8 | 15-Mar-18 | 28-Mar-18 | | | - | | | | | |
| 6 | Start ECRTS Operations | 0 | 29-Mar-18* | | | | - E | | | | | |
| 7 | Operations - ECRTS | 365 | 29-Mar-18 | 28-Mar-19 | | | - | | | | | |
| T-Plant | | | | | | | | | | | | |
| 8 | Readiness Prep | 0 | 01-Aug-17 A | 07-Dec-17 A | | | | | | | | |
| 9 | Contractor RA | 0 | 11-Dec-17 A | 21-Dec-17 A | | Ŀ₽►∎ | | | | | | |





T Plant Preparations



New STSC Critical Lift into Tunnel.

Employee performing mock-up testing.



Additional River Corridor projects and progress



100K East Reactor

Planning of future work



- Project management has begun planning for installation of safe storage enclosure of the 100K East Reactor
- Workers entered the 100K East Reactor in early January to survey inside reactor building to confirm Industrial Hygiene, Occupational Safety, and radiological conditions to positively establish future safety controls.



100K East Reactor Safe Storage Enclosure

100K East Reactor



 Additional walk downs are expected to happen periodically throughout the year to support planning and engineering future construction safe storage enclosure



618-10 Burial Ground Backfill

- As of December 30, backfill 54 percent complete
- Current schedule for completion of backfill early spring
- Backfill of 316-4 and 600-63 is complete.







